

WHAT IS CLAIMED IS:

1. An isolated antibody which binds to a polypeptide having at least 80% amino acid sequence identity to:

(a) the amino acid sequence shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10);

(b) the amino acid sequence shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), lacking its associated signal peptide;

(c) an amino acid sequence of the extracellular domain of the polypeptide shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), with its associated signal peptide;

(d) an amino acid sequence of the extracellular domain of the polypeptide shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), lacking its associated signal peptide;

(e) an amino acid sequence encoded by the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 2 (SEQ ID NO:2), Figure 3 (SEQ ID NO:3), Figure 4 (SEQ ID NO:4), or Figure 5 (SEQ ID NO:5);

(f) an amino acid sequence encoded by the full-length coding sequence of the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 2 (SEQ ID NO:2), Figure 3 (SEQ ID NO:3), Figure 4 (SEQ ID NO:4), or Figure 5 (SEQ ID NO:5); or

(g) an amino acid sequence encoded by the full-length coding sequence of the cDNA deposited under any ATCC accession number shown in Table 7.

2. The antibody of Claim 1 which binds to a polypeptide comprising:

(a) the amino acid sequence shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10);

(b) the amino acid sequence shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), lacking its associated signal peptide;

(c) an amino acid sequence of the extracellular domain of the polypeptide shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), with its associated signal peptide;

(d) an amino acid sequence of the extracellular domain of the polypeptide shown in Figure 6 (SEQ ID NO:6), Figure 7 (SEQ ID NO:7), Figure 8 (SEQ ID NO:8), Figure 9 (SEQ ID NO:9), or Figure 10 (SEQ ID NO:10), lacking its associated signal peptide;

(e) an amino acid sequence encoded by the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 2 (SEQ ID NO:2), Figure 3 (SEQ ID NO:3), Figure 4 (SEQ ID NO:4), or Figure 5 (SEQ ID NO:5);

(f) an amino acid sequence encoded by the full-length coding sequence of the nucleotide sequence shown in Figure 1 (SEQ ID NO:1), Figure 2 (SEQ ID NO:2), Figure 3 (SEQ ID NO:3), Figure 4 (SEQ ID NO:4), or Figure 5 (SEQ ID NO:5); or

(g) an amino acid sequence encoded by the full-length coding sequence of the cDNA deposited under any ATCC accession number shown in Table 7.

3. The antibody of Claim 1 which is a monoclonal antibody.

5 4. The antibody of Claim 1 which is an antibody fragment.

5. The antibody of Claim 1 which is a chimeric or a humanized antibody.

6. The antibody of Claim 1 which is conjugated to a growth inhibitory agent.

10 7. The antibody of Claim 1 which is conjugated to a cytotoxic agent.

8. The antibody of Claim 7, wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

15 9. The antibody of Claim 7, wherein the cytotoxic agent is a toxin.

10. The antibody of Claim 9, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

20 11. The antibody of Claim 9, wherein the toxin is a maytansinoid.

12. The antibody of Claim 1 which is produced in bacteria.

25 13. The antibody of Claim 1 which is produced in CHO cells.

14. The antibody of Claim 1 which induces death of a cell to which it binds.

15. The antibody of Claim 1 which is detectably labeled.